WELCOME INTO THE WORLD

OF ENGINEERING...

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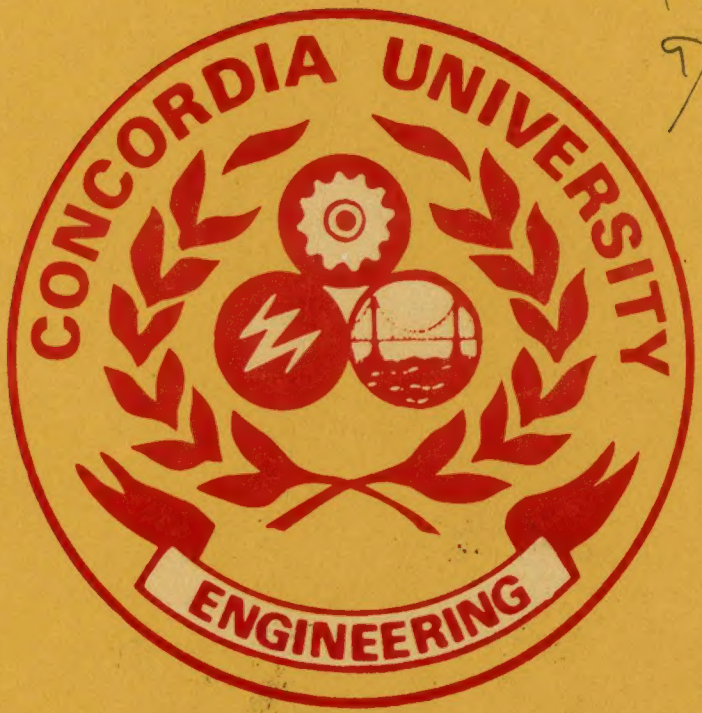


ENGINEERING
HANDBOOK
'80 - '81

THE ENGINEERS

There's a fact I have found in my looking,
Ill admit that it struck me as queer,
There is nothing you'll meet like the inborn conceit,
That's found in each
And their trouble in chief is this inborn belief
And you'll find it exceedingly odd,
"That the Engineer's station is saving the nation,
and the only one greater is God!"

So hark to my pleadings, superior beings,
Here's advice that's to precious to sell
Tho' a pedagogues brain can't find stresses or strains
Remember: He's human as well!
An accountant, its true, may look stupid to you,
He may not know a lathe from a lat,
But don't look with scorn on the folk lesserborn,
You all look the same in the bath.

And now here's a word to the rest of the heard,
Politicians, professors and clerks,
"Don't try to outsmart them, you can't do without them,
You'd better just humor the jerks!"
So hold back your tears if your not Engineers,
It is simply a matter of birth,
And keep your respect for their great intellect,
And they'll go on saving the earth.

A Word From Our Editor...

This is our first attempt at publishing one of the better pieces of Computer Science and Engineering literature, namely this handbook.

Since the Engineering Undergraduate Association (E.U.A) has always been a leader of student activities at Concordia, we needed a literary vehicle to serve as a showcase of our achievements and services. Hence, the Computer Science and Engineering handbook came into being. Furthermore, this handbook, will also tell you what you need to know about your Faculty and is yet another example of E.U.A initiative and enterprise.

I would like to take this opportunity to thank the hard working brutes who made this handbook a reality. Special acknowledgement must be given to CY the CDC Cyber 174, for his incredible memory and being able to recite every article without error, and also to Max the Multiwriter for so neatly typing out all the pages.

And so begins another school year, the Editorial Staff and E.U.A would like to wish you all the best of luck in the upcoming year. For those entering Concordia University for the first time we hope that this handbook will serve as an adequate aid to your initiation to Concordia student life. Those who already are veterans of this institution, maybe this handbook will shed a new light as to what the E.U.A.'s function is in Student Affairs and in the Faculty of Computer Science and Engineering.

Richard J. Brunner
Editor in Chief

THE DEAN'S BEANS

It is always a pleasure to welcome each incoming group of students and I thank your Engineering Undergraduate Association for giving me the opportunity to do so. You are on the threshold of a life-long education experience which will prepare you to alter the shape of our society.

During your stay at Concordia, we hope that you will not only assimilate the material in each course "package" but also begin to develop your ability to "put it all together", that is, to be able to draw upon your store of knowledge to solve new problems. The Engineer or the Computer Scientist is not called upon to put numbers into formulas, or even continue to use well known techniques to solve well known problems. As a professional, you will be called upon to innovate, that is to participate in the definition of problems, to postulate possible solutions to these problems, to recommend and eventually to decide on which solution is to be implemented. It is this which makes our profession so exciting, and it is this which you should bear in mind when during your first year you are solving your problems in mathematics, thermodynamics or writing programmes in PASCAL. Towards the end of the programme you will be given the opportunity to take

"design" type course where you will be introduced to the idea of synthesis, namely problem solving in the true sense of the phrase.

Another characteristic of a professional which you must also strive to develop is your ability to express yourself orally and in writing. You will be of very limited value to your employer if you cannot communicate your ideas to others. Very often people with sound technical backgrounds find themselves relegated to sub-professional jobs simply because they cannot communicate properly. Those of you in an Engineering programme will be given several opportunities to develop this ability and I suggest that those of you following a Computer Science programme make use of your electives to take courses which will enhance your communication skills.

A last point. A university brings together people of many different backgrounds and outlooks. It is a place where ideas are born - or born again, where young people develop many of the guiding principles which they will carry with them throughout their lives. This facet of your education we do not "teach" you. We simply, by being a university, provide the setting for you to acquire it. Take advantage of it. Meet people, participate in student associations or student chapters of professional associations.

Good luck. In some ways, I wish I were in your shoes.

M.N.S. Swamy
Dean of Engineering

Building Studies

Building, one of **Canada's** largest industries and **esponsible** for **15%** of the **GNP** offers excellent career opportunities to young men and **women** with breadth of vision and **ood** training.

As a result of considerable activity in this area and in consultation with representatives from governments and **ndustry**, Concordia University established in 1977 the Centre **or** Building Studies to respond to the needs of this industry through teaching, research and development programmmes.

Leading to the degree **B.Eng.** (Building), a unique educational programme in **Building Engineering** is offered in the **Centre** which prepares the **graduate** for rapid changes in the **uilding** industry.

These trends **include large and more** complex projects, the **eed** for **conservation of scarce** resources and changes in the **ethods** of **project delivery.** Important educational implications **arising from these** trends include the need for **ore** interdisciplinary **knowledge,** acquaintance with more **igorous** analysis **and design** techniques and greater knowledge **of** economics, **decision analysis** and management techniques.

Building Engineering, as a discipline, encompasses the body of knowledge which pertains to all phases in the life-cycle of a constructed facility, namely conception, planning, design, construction, operation and disposal.

The services of building engineers will be sought by consultants, owners, contractors, manufacturers, government, research and educational institutions. Their talents will be applied to all phases in the life cycle of various types of buildings which include commercial, residential, industrial and institutional facilities as well as to the development of new innovations and knowledge pertaining to the built environment.

The building engineer is an essential member of the design team, either as member, leader or specialist adviser. In this role, he may be called upon to design various systems or subsystems, to provide both technical and management expertise to solve a wide variety of of problems that are likely to change from project to project, to integrate the various components and subsystems, to provide organization of procedures and of the site, to match the scheduling of materials and operations with available machinery and labour, and to ensure that most economic use of the resources available is made and that clients obtain maximum benefit from their investments.

The programme at the Centre combines elements of the various engineering disciplines to provide a strong professional background to the graduating building engineer. This programme leads to the award of two degrees : B.Eng. (Building) and M.Eng. (Building) and those who can maintain an accelerated pace of studies can complete it in four years. Applicants admitted to the undergrauate programme would have the option of applying for transfer to a combined degree programme after completing all but one of the required 200 and 300 level courses.

At the undergraduate level, attention is focused on engineering mathematics, physical science and engineering fundamentals which relate to the four branches of concentration. Some emphasis is also placed on the development of decision making skills. At the graduate level, activities are focused on developing specialist knowledge in one of Building Science, Building Environment, Building Structures, and Construction Management and a minor in another branch. To further enhance the students decision-making skills, courses will also be taken on decision analysis, integrated building design and computer aided design. Depending on the career objectives of the students, she/he is also required to prepare a technical report, dissertation or thesis.

The Centre has established a strong liaison with industry and often students are given the opportunity to work on joint projects with industry during the summer. For instance, Ken Case, a second year student in Building Engineering, carried out an energy analysis of four existing buildings for the federal and provincial governments in the summer of 1979 under the supervision of faculty member, Mal Turaga. Such experience exposes the student to actual work situations and to potential employers.

The Centre is located on the second and third floors of the building at 1249 Guy street, corner of St. Catherine. Dr. Richard Guy, Undergraduate Co-ordinator, at extension 8552, or I at 4039, as well as other members of the Centre would be pleased to respond to any enquiries you may have.

I wish you success in your studies.

Paul Fazio
Director of Building Studies

CIVIL ENGINEERING

1. General

Civil Engineering is primarily concerned in providing systems that effect the physical well-being of society on a large scale. To satisfy these needs the Department of Civil Engineering is active in four basic areas, namely:

- Structures
- Water Resources
- Transportation Engineering
- Geotechnical Engineering

2. Programmes

The Undergraduate Programme is designed so that students may, after a grounding in the fundamentals of Civil Engineering, specialize in the areas mentioned above.

Emphasis is given to the Undergraduate Programme, which generally consists of CEGEP courses (in the Province of Quebec) as a preliminary stage, and the remaining three years (first two years may be taken at Loyola Campus) at SGW Campus.

After obtaining his/her B.Eng. degree the student may continue his studies in the Graduate Programme to obtain M.Eng., and Ph.D. degrees in the above areas of research and specialization.

3. Faculty Members

Full time faculty members of this department are teaching the undergraduate and graduate courses and are available for advising the students concerning all academic queries: programmes, courses, research, laboratory work and similar educational problems.

4. Laboratories

To help undergraduate students in their classroom courses and to perform experimental research for those who will be working towards their M.Eng. and Ph.D degrees, this Department has the following laboratories:

1. Structural laboratory
2. Water Resources laboratory
3. Mechanics of Materials laboratory
4. Geotechnical Engineering laboratory
5. Engineering Materials laboratory

The above labs are served by experienced staff, which apart from the professors, may help students during their work in the labs.

5. Financial Support

During their studies, undergraduate students, working as part time lab instructors, tutors and markers, may be financially supported during the fall, winter and summer term. During graduate studies, financial support may be provided by fellowships, part time teaching assistantships and also by research grants obtained by supervisors.

6. Civil Engineering as a Versatile Field for Employment

It should be mentioned that the Civil Engineering Department at Concordia University is less then fifteen years old, yet its graduates hold challenging jobs in many industries. This is because Civil Engineering is one of the most fascinating and versatile fields of Engineering. Practically in any area of Civil Engineering it is necessary to solve structural problems related to the structure itself and different materials such as steel, concrete and timber.

Transportation systems interact broadly with the physical, economic and social environment of society. Geotechnical engineering is a fundamental part of the other three branches of Civil Engineering - it provides the "foundation" for them. And, considering that water is essential to human life, it is necessary to manage our water resources rationally.

The above facts, probably, may explain why every year the Department of Civil Engineering has a large enrollment of students.

Dr. M.S. Troitsky
Professor Chairman
Dept. of Civil Engineering.

Computer Science

Department of Computer Science

Computer Science is concerned with the systematic study of information. This includes both the art and science of information representation and processing by computers. Computer Science is a very useful and dynamic area. Its importance is demonstrated by the increasing number of computers (large, mini, micro, ect.) in large and small organizations. The many fields of Computer Science involve such problems as the design and construction of computer systems, the design of suitable languages and techniques for communication with computers, data processing and economic use of computers to control industrial processes, and efficient use of computers in many branches of industry, business and government agencies.

The Department of Computer Science at Concordia University offers both undergraduate and graduate programs. The undergraduate program is a three year program (or eqivalent for part-time students) leading to the Bachelor of Computer Science degree with four options: General Science, Digital Systems, General Business and Mathematics. While the undergraduate program gives training principally in the fundamentals of

hardware and software designs, the graduate program is oriented towards computer applications, preparing graduates for positions in management, design, teaching and research in Computer Science and related areas.

The University Computer Center provides Computer Science students and staff the usage of a mainframe Control Data Cyber 174/2 dual cpu computer with 198K words of memory, remote job entry terminals, interactive decwriter and CRT terminals. The Department of Computer Science has ten teaching and research laboratories each equiped with versatile mini-computers (e.g. PDP-8, PDP-11, TI980, ect.) and microcomputers (e.g. LSI-11, M6800, M6809, Intel 8080, Intel 8086, Zilog z-80, Am SYS 8/8, ect.), and specialized research facilities with connections to the main computer.

The faculty members of the Computer Science Department are very active conducting state-of-the-art research projects. Numerous faculty members have received research grants form local, provincial, and federal agencies.

Heavy demand of programmers, analysts, and computer professionals continues and our graduates have been very successful finding jobs.

C.Y. Suen
Chairman, Computer
Science Department

Electrical Engineering

Electrical Engineering is concerned with all forms of electrical phenomena and their utilization for the benefit of mankind. Early in the history of Electrical Engineering electricity was used as a means of transporting energy as well as information over large distances. The same is true today except that the transmission speed and quantity of information, the quantity of energy and the distances involved have increased by many orders of magnitude. By means of the communication satellite events and news are distributed to the four corners of the world as they happen. On the other hand, by means of the large and efficient distribution grid, energy is transported from energy source to any point over a continent and frequently from country to country.

Electrical Engineering has existed as a professional discipline for little more than a century. Nevertheless, it has already grown into a very broad discipline encompassing many diverse specialities like Digital Communications, Power Systems, Acoustics, Microwave Engineering, Optical Communications, Power/Electronics, Signal Processing, Control Systems, Digital System Design, etc. Indeed, the Institute of Electrical and Electronics Engineers and the Institution of

Electrical Engineers publish specialist journals in more than thirty different branches of Electrical Engineering.

In the past 30 years Electrical Engineering has undergone a virtual revolution. First the transistor and later the microcircuit led to radical changes in the design process. In the past Electrical systems were designed by using discrete elements like resistors, capacitors and transistors whereas at present the design is based largely on functional integrated-circuit modules like operational amplifiers and microprocessors. These developments led to compact reliable and inexpensive systems, and also to new types of systems that were not even anticipated or considered feasible only a few years ago. The modern digital computer has evolved, whose problem-solving capability and high speed of processing information escape the grasp of the layman. In turn, the digital computer has revolutionized the design process in all branches of Engineering.

An Electrical Engineer may be engaged in research, development, design, manufacture, maintenance, marketing, management, and possibly administration in one or more of the many specialities under the umbrella of Electrical Engineering. Therefore, the Electrical Engineer of to-day must receive a carefully planned professional education.

The curriculum in Electrical Engineering at Concordia University has been developed with the following objectives in mind:

1) To achieve a balance between the conflicting requirements of high specialization and greater breadth of knowledge.
2) To achieve a sound balance between physical sciences and design techniques.
3) To provide a solid foundation in mathematics, numerical methods, and Engineering principles.
4) To provide formal training in communication skills.
5) To provide formal training in the social aspects of Engineering as well in Engineering economy and practice.
6) To allow the student to pursue some specialization in his area of interest.
7) To provide the student with practical design experience.

The Electrical Engineering Curriculum at Concordia University consists of three modules as follows:

1) Engineering Core.
2) Electrical Engineering Core.
3) Specialized Option.

The Engineering Core builds on the mathematics and science courses of the CEGEP programme and includes courses on applied mechanics, basic circuit analysis, and graphics. The course on basic circuit analysis is followed by a course on physical systems and measurements, which introduces the student to a unified treatment of the modelling and analysis of mechanical, Electrical, fluid, and thermal systems. The laboratories associated with these courses are designed not only to develop a thorough understanding of theoretical principles but also to give students practical experience with measurement techniques.

The Engineering Core includes a number of non-technical courses, as follows:

1) Two courses on Engineering economy and law.
2) Two courses on the social aspects of Engineering.
3) Two courses on communication skills entitled "Technical Literature" and "Electrical Engineering Seminar". In addition, the student is required to write a formal technical report during the summer preceding the last year of study.

The courses on Engineering economy and law emphasize the importance of cost effectiveness in Engineering design and the legal responsibilities of the Engineer. On the other hand, the courses on the social aspects of Engineering deal with the social consequences of Engineering. These courses are normally

taken in the final year of the Programme, namely at a point at which maximum benefit may be gained.

The course on technical literature and the technical report requirement are designed to provide students with some experience in communicating their thoughts in writing. On the other hand, the course Electrical Engineering Seminar is designed to provide students with some experience in communicating their thoughts orally in front of an audience. The Electrical Engineering Seminar serves a second purpose: It provides a forum where the broader implications of Engineering can be debated.

The Electrical Engineering Core comprises courses which are considered mandatory for all Electrical Engineers. It includes courses on Electronics, fundamentals of control systems, Electromechanics, and logic design. The most important tool of an Electrical Engineer is the digital computer. This fact is recognized by including in the Electrical Engineering Core courses on computer organization and software, and on numerical methods. There are four Specialization Options in the Electrical Engineering Programme as follows:

1) Computer Engineering Option.
2) Electronics/Communications Option.
3) Power Option.
4) Systems Option. Each of these Options comprises a set of carefully selected courses, and each is designed to allow the student to achieve some degree of specialization in his chosen area of study.

The Computer Engineering Option entails some required courses like Digital Computers in Systems, Design of Digital Computers, Logic Design II, and some elective courses like Microprocessor Systems, Computer Languages and Programming etc. Considerable effort and resources (about $100,000) have been devoted in recent years towards the establishment of a Computer and Microprocessor Laboratory. This laboratory is now operating in full capacity and is serving the heavy demand rather effectively.

The Computer Engineering Option entails some required courses like Digital Computers in Systems, Design of Digital Computers, Logic Design II, and some Elective courses like Microprocessor Systems, Computer Languages and devoted in recent years towards the establishment of a Computer and Microprocessor Laboratory. This laboratory is now operating in full capacity and is serving the heavy demand rather effectively.

The Electronics/Communications Option is designed to allow the student to choose either a heavy concentration in Electronic design or a heavy concentration in the area of communications.

The Power Option entails required courses like Electric Machines, Electrical Power Systems, Static Power Converters, and Elective courses like Studies in System Optimization, Control System Design, Time Domain Analysis and Design. Recent improvements in this Option have been the establishment of a Power Electronics Laboratory, the expansion of the Machines Laboratory and the hiring of a new technician.

The System Option entails required courses like Control System Design, Studies in System Optimization, Time Domain Analysis and Design, and Elective courses like Digital Computers in Systems, Microprocessor Systems. This Option has been strengthened recently by hiring a new faculty member with a strong background in optimization techniques.

During the academic year 1979-1980, the Department of Electrical Engineering has proposed that the Computer Engineering Option be replaced by a degree in its own right entitled "Bachelor of Engineering in Computer Engineering". This change has been approved by the Senate in May 1980. The new programme will start in September 1981.

The Faculty of Engineering places considerable emphasis on

effective teaching and new methods of instruction are continuously being tried out. Laboratory development is encouraged and much work is accomplished every year during the summer months.

Almost every design-oriented course is accompanied by a laboratory, and many courses require project work. Our purpose is to provide the student with as much practical design experience as possible.

The Faculty of Engineering has always recognized that the Programme can be enriched by the participation of practising Engineers and specialists from industry. Hence, each year a number of experts from industry are requested to teach some of our courses. This, together with the fact that the Faculty of Engineering has built a full-time faculty with extensive industrial and research experience, tends to expose our students not only to the current developments in industry but also to the current trends in research.

May I take this opportunity to address a plea to all new as well as seasoned(to taste) students. We are here to help you. If problems arise, and they usually do, please do not hesitate to talk to me or to Dr. V. K. (Best in the West) Bhargava, who is the undergraduate co-ordinator. We promise to do our utmost to straighten things out.

Finally, I would like to welcome you and to wish you an enjoyable and profitable year.

Andreas Antoniou
Chairman
Department of Electrical Engineering

Mechanical Engineering

The Department of Mechanical Engineering at Concordia offers one of the best learning experiences in Engineering education available on this continent. Its professors have gained world-wide recognition for their activities in both research and Engineering practice and have developed a curriculum with the relevance and depth needed for today's technological society, maintaining at the same time, a close contact with their students.

The mechanical engineer is concerned with the creation of devices, systems,structures and processes for human use. His other task is to apply scientific, mathematical, economic and social knowledge to satisfy specific needs of the community. The services required of mechanical engineers encompass a very wide range of professional activity, such as design, research, development and management carried out in environments of equally diverse nature, such as industry, medicine, private practice, university and government.

Training in Mechanical Engineering and the professional practice in this field are both very interesting, satisfying and rewarding experiences. The job opportunities are many in

primary and secondary industries, government agencies, in teaching or even in private practice and are as diverse as the many thousands of products created by mechanical engineers.

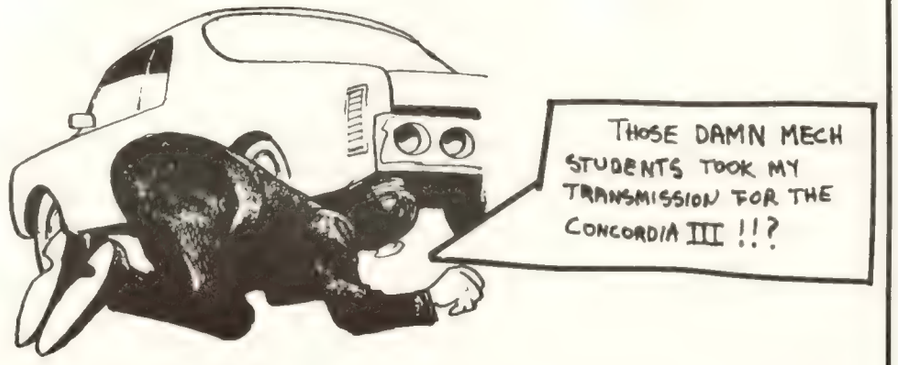
In view of the very wide range of activities in the field, the Mechanical Engineering curriculum consists of a combination of core courses with a series of technical electives. Strong emphasis is given to building on the principles presented in the basic Engineering and physical systems courses of the general requirements. Further core courses are taken by all Mechanical Engineering undergraduates and deal with topics basic to the field, including control theory, thermodynamics, fluid mechanics, heat transfer, machine design and metallurgy. Technical electives allow students to obtain a degree of specialization in a particular area of the field, depending on their interests and expected future professional activity. Three general areas of specialization are available, namely: Thermal-Fluid Power Engineering, Design and Production Engineering, and Electro-Mechanical Systems, including Control Systems.

Some changes in the course contents and streamlining and introduction of new technology courses such as microprocessor applications, etc., were made to make the undergraduate program more effective. Preliminary legislations for expansion of the thermo-fluid option to include courses on gas turbine technology in cooperation with Pratt and Whitney Aircraft of Canada Ltd. and for the new option in Industrial Engineering were completed for 1981 implementation. The Canadian Accreditation Board examined the existing departmental program and was highly impressed with the quality of our program, the graduates and the supporting facilities.

The Department kept a very high profile in research activities during the report period where the faculty members, individually and as a team, received successfully funding from numerous agencies during 1978-80. Some of the faculty members are included in the editorial boards of several journals and were chosen for many conference organizing committees. Several members appeared in local TV and radio programs and were featured in articles in many Engineering and other general magazines and news publications. During this period, the Department had eight visiting and special research faculty appointments supported through faculty research funds and ten adjunct faculty appointments for collaboration in research.

I wish you all a successful year.

T.S. Sankar
Chairman
Mechanical Engineering



GETTING THINGS DONE

The university is of necessity a complex bureaucracy and it will take you time to find your way around. What follows is a listing of those offices you might wish to contact, and what they are in a position to do for you.

1. Your Professor

At the course level, the professor is naturally your primary contact, and is your source of information concerning textbooks, laboratories, grading schemes, as well as being the person who will help you with difficulties you may have in understanding the material of the course. The professor has no jurisdiction over registration in the course (entry into or withdrawl from it - or section changes).

2. Course Co-ordinator

Multisectional courses have one professor who has been given the responsibility for co-ordinating the instruction of the course, setting the final examination and ensuring grading for all sections.

3. Your Department

Your department is responsible in conjunction with the Dean's office for advising you on your overall programme. Current undergraduate advisors are:

	SGW	LOYOLA
Center for Building Studies	R. Guy	
Civil Engineering	A. Hanna	C. Goldman
Electrical Engineering	V.J. Bhargava	C. Trueman
Mechanical Engineering	M.O.M. Osman	K. Krakow
Computer Science	J. O'Patrny	B. Desai

Your advisor may recommend you to the Dean's office with respect to changes in your programme.

Departmental secretaries can help you in getting in touch with professors, finding rooms, etc.

4. The Dean's Office (H-907, SGW and RF309, LOY)

The Dean's office is responsible for most things related to your programme and to your registration. The individuals you would tend to deal most with are:

J.F. Lindsay, Assistant Dean, Undergraduate Student Affairs - responsible for deciding on most of your student requests relating to your programme. He may ask for departmental advice before making a decision.

Joey Rawlins, Academic Programmes Assistant - responsible for most matters relating to registration (other than rooms) and scheduling.

Kathleen O'Connell (SGW) and Charlene Wald (LOY), Undergraduate Secretaries - primary contacts in the Dean's office. They can sort out some of your problems and give you information. Do not hesitate to explain your problem to them so that they can tell you what should be done.

5. Admissions Office (SGW - N-105; LOY - AD-206)

This is the office you have dealt with to date. It is responsible, in consultation with the Dean's office, for handling all matters relating to admissions including transfer credits and exemptions.

6. Registrar's Office (SGW - N-107; LOY - CC-214)

This office is responsible for maintaining your academic record, based on information received the Dean's office. It is also the place to go to drop courses after the close of

registration (including 'late registration'), or to request re-evaluation of a grade.

7. Examinations Office (SGW - C-105)

You go there to apply for a supplemental examination, or if you miss an exam due to illness, to bring your medical certificate.

8. Student Accounts Office (SGW - N-101; LOY - AD-209)

Go there first if you think you have been incorrectly billed.

9. Dean of Student's Office (SGW-N-101 LOY-AD-135)

10. Health Services (SGW - H-405; LOY - CH-012)

11. Financial Aid (SGW - H-405; LOY - AD-125)

12. Ombudsman (SGW - MI-10Y; LOY - AD-116)

13. Libraries: Science and Engineering Library, 10th Floor, Hall Building (SGW), Vanier Library (LOY)

Addresses

AD	7141 Sherbrooke W.
BE	l249 Guy
C	1440 Ste. Catherine
CC	7141 Sherbrooke W.
H	1455 DeMaisonneuve Blvd. W.
MI	2120 Bishop
N	1435 Drummond
S	2145 Mackay

Important Dates

08 September	Start of classes
08 Sept.-19 Sept.	Course Change Period
31 October	Last day of Withdrawl, 1st Term Courses
08 December	Last day of Classes - Fall Term
09 Dec.-23 Dec.	Examinations
05 Jan.-16 Jan.	Registration and Course Change
08 January	Start of Classes
27 February	Last day of withdrawl, Winter Term Classes
Early April	Pre-registration
10 April	Last Day of Classes
11 April-30 April	Examinations

Other Useful Publications

University Calendar- This is the official publication of the University with regard to programmes, academic regulations,etc. In particular, you should be aware of the academic regulation governing undergraduate students in the faculty (pp. 369 and 370).

Programme Guide - This is a faculty publication designed to help you determine which courses you should take in which term.

EUA President

Pat yourself on the back. Computer Scientists and Engineers enjoy the satisfaction of being the faculty that is giving Concordia its fine reputation. An accurate analogy of Engineering and Computer Science would be to compare ourselves to the 1927 Yankees. Backed by Gehrig and Ruth, the Yankees outclassed them all.

Similiarly, although we number only 1400, Engineers and Comp-Scis remain uncontested as the elite of Con U.

There have been outsiders who have criticized the Engineers and Computer Scientists for their "erratic" behavior. When people approach me questioning the rowdyness of my confreres, I merely remind them of the 1934 St. Louis Cardinals. They were nicknamed the "gashouse gang", and were despised by every baseball team in the majors. Their off field behavior was certainly uncommon of the depression 30's. While on the road, the Cards destroyed the hotels which hosted them.

If there was a convention in town, the Cardinals were sure to disrupt it. Sometimes dressed as construction workers, select Cardinals would walk into a banquet and start to renovate the room while the banquet was in progress.

Pepper Martin, the third baseman would go to the podium, and announce that the room was being renovated, and begged that the banquet continue because the speeches were not interrupting the renovation.

They were the only major league ball club to have a musical band composed of its own players. The "Mississippi Mudcat Band" as it was called relied on spontineity as a schedule. They would play in hotel lobbies, train stations, on trains, and in the ball park whenever the time felt right.

Yet, despite their off field behaviour the Cards were masters on the field, truly professional. When October came, it was the Gashouse Gang that defeated the Detroit Tigers four games to three in the World series.

You may now be wondering why I write so much about the '34 Cards. Well if you'll stop and look around you, you'll notice a few similiarities. The Concordia University Computer Scientists and Engineers are a closely knit group. We are envied by every other faculty in the university. We are sometimes a rowdy bunch, and we even have our own band.

The most important similiarity however is that in the long run (and the short run) we too are number one.

Michael F. Kehoe

Michael F. Kehoe
President
Engineering Undergraduate
Association

EUA

V.P. Internal

So, you wanna be an ENGINEER! I can think of worse things to be. Engineering is the world's second oldest profession (which at times supports the world's oldest profession). Engineers are the world. Anything and everything that you see in this world today that is good is because of Engineers. All the bad things are because of artsies and commerce students and other lower orders of life. If a commie or an artsie hassles you, just reply "I ,Engineer, created all the good things in life for your convienience - so get your sheep and FLOCK OFF!"

On the serious side of things: Engineering is no joke. Most, if not all, of you first year students are going to wonder why you ever opted for a workload 3.75 times that of an artsie. As an Engineering student you have to work hard to learn. Remember, there is a world out there depending on your knowledge to survive. There are also leaches out there, so be wary of who you lend your assignments to.

Engineering is not all work and no play. Some of you may have even been swayed into Engineering because you heard of the Engineering myth concerning parties. Believe me, it's no myth, it's a reality! To coin a cliche, Engineers work hard and Engineers play hard. Our bashes boggle the mind, reel the senses and are no place for those either pure of mind or soul. - Can't wait for our first bash, eh?

We don't just party to have fun, you know. We also pick on other faculties, as the zoo keeper plays with his charges. Occasionally a faculty, like a caged zoo animal, gets out of hand. Those that do are swiftly put back into their places.

Engineers like parades! No parade is complete without a contingent of Engineers to liven it up. Last year we were the major attraction of the Grey Cup parade in Montreal with our Boggemobile (more about the Bogge to come). This year the E.U.A. is organizing a trip to Toronto for the Grey Cup parade. The Bogge will look even better than last year thanks to a kind $350.00 commerce donation towards the Engineering cause. (We have the commies trained!)

I could go on but I won't because I'm out of ideas, except for this final thought: The E.U.A. exists for the students. We can only plan events. It is You Engineers who make things happen by participating. So come along with us for a good year.

Albert R. Carbone

Albert R. Carbone
Internal Vice-President
Engineering Undergraduate
Association

EUA
V.P. External

So you think it's an easy job being Minister of Vice and Corruption. Well let me tell youse guys it takes a lot of time and effort to run a protection racket. Believe me, after being rolled for all that money by C.U.S.A. you need to be protected. So being on a mission from God, and being the trigger-happy S.O.B. that I am, It's up to me and the rest of the E.U.A. to discipline and have our way with the pompous (CUSA) bureaucrats and other savages that run rampant in this institution.

Sometimes the job is a little difficult to do for just five fun-loving sadistic and free-spirited EUA executives. So to see that the needs of the Computer Science and Engineering students are well taken care of by our organization, we ask for some of you to act as enforcers for the EUA. It would also be nice if some of you informers drop by the EUA (H880-10) and let us know what grievences you have about our own little bureaucracy. Perhaps it's the type of beer we serve or the band we didn't have. Maybe the problem goes even deeper than that, like having the ass-hole commerce students cluttering up the COMPUTER CENTRE with the SPSS subroutines they don't know how to use.

But for every problem there is a solution. The EUA will rectify all conflicts in it's all-knowing and infinite wisdom (we are all knowing and infinitely wise compared to commerce) and proper action will be taken.

I thank you for your time.

Richard J Brunner

Richard J. Brunner
External V.P. & Male prostitute
Engineering Undergraduate Association

EUA Treasurer

Hi. My name is Mike McAlear. I'm "Money Bags" (the treasurer) of the E.U.A. This year we have been able to swindle, counterfeit, beg, borrow and steal enough money from our many and varied sources to give you enough social and professional activities to make your stay here a bit more enjoyable and informative. But you can't enjoy or get informed if you don't get involved. Like my great great grandfather always told me "nothing like a good fuck first thing in the morning." So get involved, first thing in the morning.

Michael M. McAlear
Treasurer,
Engineering Undergraduate
Association

EUA Secretary

Hi there! My name is Venkat Nagesh Tata (Imperial Packrat for short). I'm the Executive Secretary for the E.U.A. Part of my responsibilities and obligations to the students is to keep them informed on upcoming happenings. To realize this task, I will have a regular article in the "Bulge" (our newsletter - the regularity of the "Bulge" is of course another matter entirely). For the coming year, the E.U.A. has a lot of events planned, and you will want to be informed of them. As a matter of fact, you might even want to be a part of them. If you do, you will get all the encouragement from us. Remember, ask not what we can do for you, but ask what you can do for us. In conclusion, I wish you all the fleas of a thousand camels under your armpits. Oops, I meant to say good luck and have a successful year!

Venkat Nagesh Tata
Executive Secretary
Engineering Undergraduate
Association

Orientation Week

Don't just sit there, you first year bambinos, stand up and get oriented! The E.U.A. has spent sleepless nights (no shit!) in getting all kinds of things together to make you froshes feel right at home. We have two (count 'em, two) bashes to introduce you young'uns to the finer points of drinking beer and ravaging women. We have organized tours to show you the Hall building and introductory speeches to show you the Dean and Department Heads. All during the week you can drop by the booths in the mezzanine or the E.U.A. offices (880-10) to sign up for some professional societies or to part with some of your hard earned money to buy Engineering t-shirts and sweat shirts and hats and crests and buttons and stickers and...

As is mentioned in other parts of this handbook, if you don't get involved, nobody will know that Engineering exists... but if you do get involved, together we will reign supreme on campus (according to tradition). Have a good year.

Engineering Flag Football

What a year 1979/80 proved to be. The E.U.A. organized its first ever flag football league consisting of 5 teams. The greatest upset was by the top team, "THE LUBRICATORS", who managed to go from last place to first by the end of the season.

The "JOHN CHIARA MOST VALUABLE PLAYER" award went to Rocco Farnucci, of the Shafters, for his great performance as the team's quarterback.

This year's flag football season will start about 2 - 3 weeks after the first day of classes. Thus you have time to sign u) in front of the E.U.A. offices, 880-10 at S.G.W., or see Tony or Joe at Loyola. Rules and regulations will be posted in the 9th floor display cases. This year's league will have 6 teams, each with a maximum of 25 players. The teams will be broken down as follows: 1 civil; 1 mechanical; 1 electrical; 1 comp sci; 1 3rd year team; and 1 Loyola team. The games schedules and standings will be posted on the 9th floor one week before the season starts. All games will be played at Loyola behind the football field.

Most of the games are played between 4:00 - 6:30 p.m., on Thursdays and Fridays, however this is not official. There are 12 games in a full season, after which 4 of the 6 teams make the playoffs. An all-star team is selected at the end to uphold Concordia University Engineering's honor against engineers from other universities. More information can be obtained from the E.U.A., H-880-10.

The Bogge

"Behind every great Engineering school is a great Engineering newspaper. Without the Bogge, Concordia would be just another diploma mill processing commies, artsmen and other vermin; with it, we are a superpower capable ever of shutting up Alan Kunigis for a second or two."

Roger Dugal
E.U.A. President "79-"80

Roger really didn't say that; I just made it up, but it tells you how important our revered Engineering paper, the Bogge, really is. If Roger were alive today,(he graduated and went to Alberta, so he may as well be dead), he most certainly would agree.

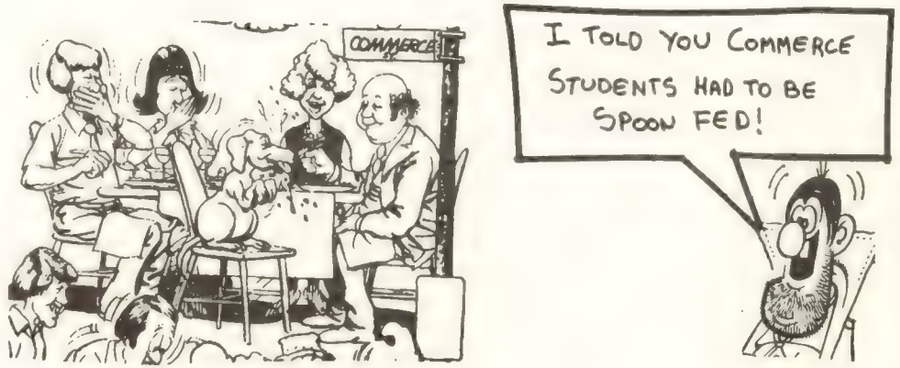
The Bogge has been around for as long as Engineering spirit has been at Sir George Williams and Concordia. Copies exist dating back 15 years and more. It has been used by students as an infamous source of campus gossip, scoop news stories and of course, a source of humour.

The Bogge shares the spotlight with it's sister publication, the Bulge. The functions of these publications are distinct. The Bulge is a regular newsletter appearing usually before an E.U.A. event. It features: original and plagarized humour, information, and reporting. The Bogge is a publication consisting of original humourous articles written and submitted by anyone who feels like it. The Bogge is: LET ME REPEAT, entirely original. Consequently it only appears when there is sufficient material. This is where you come in; SO FOR SHIT'S SAKE SIT UP STRAIGHT AND PAY ATTENTION.

If you have any interest in submitting articles or sitting on the Bogge staff, please let the E.U.A. (Room 880-10) know. From past experience I can say that doing anything for the paper including photography, drawing, writing or just sitting in on the meetings can be a constructive and rewarding creative outlet. If you wish, articles may even be submitted anonymously or under a pseudonym; no one need know how troubled you are and what a mess your mind is in.

Show your spirit and give generously to the Untidy Way.

Dr. Letz B. Normal
alias "Spike"
alias "Dorothy, Toto and Bruce"



Engineering Week

In the words of an un-civil,ex-head cylon (who shall remain nameless and brainless) Engineering week is the "Gala" event sponsored by the E.U.A. (Gala?... sounds like a channel 10 t.v.show). Anyways, every year, since the beginning of time (at least 1959,for me) there has been the Engineering Week at Sir George. What is Engineering Week? Funny you should ask. Well, let me tell you. It is one week set aside in the second term (this year it's the second week of February) in which engineers get to be supreme leaders on campus. We put on a multi-million dollar display of Engineering stuff in the mezzanine. We have parties and bashes four out of five nights. We have an Engineering Ball (the dancing kind, you horny pecker!). We have Smoker's Night (mustn't forget Smoker's Night). We have the annual treasure hunt, the Engineering decathalon, the snow-bowl game between Sir George and Loyola, a car rally, a drunken dance-a-thon, a Molstar competition during the ski trip (for which we get Friday off), etc.,etc.,etc.!

This year provisions have been made with the powers that be (the Dean's office) to insure that no midterm exams or heavy assignments fall either during or one week after Engineering Week. Now you guys and gals have no excuse not to show.

Remember, Engineering Week is for engineers (and their females or males), so y'all come out and make merry.

- One last comment: If there is anyone out there who would like to lend a hand organizing some of the events, please contact anyone in the E.U.A.

The Last Revision

The comp-sci man and the Engineer
Are men of skill and vision.
At least they are until they hear
The hated word, "Revision".

The Engineer with practiced eye
Surveys his grand design.
The comp-sci man then proceeds to write
Each complicated line.

"Complete" they sigh contentedly,
"Miraculous precision".
Oh optimists tomorrow brings,
Catastrophe "Revision".

Revision One, "Add this new piece"
Revision Two, "Improve it"
Revision Three, "Make it just right"
Then number four, "Remove it"

You can't do this, you can't do that.
We'll wait for a decision.
But in the meantime just revise
The last revised revision.

They hope that God's no Engineer.
When he makes his decision.
If once they win their wings, they hope
There will be no last revision.

Grey Cup Parade

As you know, all Engineers love parades. There is always a reason (excuse) for a parade. Some of the places that parades have taken place in the past have been: the library, into Commerce classes, into Arts classes, down St. Catherine Street, and into Gertrude's (McGill's pub). In general, anywhere we want. Two parades stand out in my mind that are annual events: St. Patrick's Day Parade and the Grey Cup Parade.

Last year's Grey Cup Parade was a fantastic affair (what I remember of it). What happened, you might ask. Well, first off, a certain beer company was good enough to give us a few samples (like 15 cases of two-four). Then there was the fact that the Allouettes were in it, and the cheerleaders didn't hurt, and the Engineers from U of Manitoba helped us out, and one thing led to another, and well, we had one hell of a damn good time.

Well this year the Grey Cup Parade is in T-O (Toronto , for you fools). The E.U.A. has a certain amount of funds eyeballed for our triumphant return to this year's festivities. Be on the look out for more info concerning this once in a lifetime opportunity - to make Toronto into a fun place again.

WARNING TO ALL WHO WRITE FINAL EXAMS

Promulgating your esoteric cogitations or articulating your superficial sentimentalities and amicable philosophical or psychological observations, beware of platitudinous ponderosity. Let your conversational communications demonstrate a clarified conciseness, a compact comprehensibleness, no coalescent conglomerations of preciose garrulity, jejune bafflement and asinine affectations. Yet your extemporaneous verbal evaporations and expatiations have lucidity, intelligibility and veracious vivaciety without rodomontade or Thespian bombast. Sedulously avoid all polysyllabic profundity, pompous propensity, psittacious vacuity, ventrilogical verbosity and vaniloquent vapidity. Shun double-entendre, obnoxious jocosity and pestiforus profanity, observable or apparent. In other words, SAY WHAT YOU MEAN AND DON'T USE BIG WORDS!

CUSA

The Concordia University Students' Association (CUSA) is the one student association which represents the interests of all students at the University, and any student registered at Concordia is a member of the Association.

CUSA the organization is composed of two elected Co-Presidents, 9 appointed Executive portfolios, and an elected Legislative Council of 32 voting members, representation on which is distributed by Faculty — 12 Arts and Science members, 9 Commerce, 5 Fine Arts, Four ENGINEERING, and the two Co-Presidents. The Legislative Council is the chief policy and decision making body of the student body.

CUSA's resposibilities include: appointment of students to the Board of Governors, Senate, Faculty Councils, and CCSL; financing affiliated clubs and Associations, and the day to day operations of CUSA itself.

If you have any questions concerning CUSA and its operation, feel free to contact any of the four Engineering representatives: Mike McAlear, Wayne Kotania, Rodney Gorchinsky or Nicole Robillaird.

Susan Crompton

CCSL

The Concordia Council on Student Life (CCSL) is the University body which concerns itself with the non-academic aspects of student experience at Concordia. What are the non-academic aspects of student ? The specific definition is still being grappled with, but the main areas are: health care; personal and career counselling; physical activity; and information; both post-graduate and career. As such, then, CCSL deals with the two Dean of Students Offices (Loyola and Sir George), the Athletics Dept., and the Guidance Services Department. The mandate of CCSL is "the only body responsible for student service policies and budget." CCSL reports to all University bodies, to the Board of Governors through the Rector, who generally delegates his position on CCSL to the Vice-Rector responsible for student services, Reverand Russell Breen. The membership of CCSL is, in fact, the only University body on which students have parity: there are six student representatives -- 3 from CUSA itself, and 3 students-at- large appointed by CUSA. Strong and well informed representation is therefore essential on the Council if students are to have direct and powerful influence on the programmes being designed for us by the four Area Directors. The one standing committee of CCSL is the Priorities and Budget committee which reviews, amends and eventually submits for approval to the full Council the budgets of the four Area Directors. Of a total expenditure on student services of $1,877,153 , students provide $1,099,004 (1979-80 budget), which is drawn from the 15.57% student service fee charged on the basis of tuition costs by the University. Thus, the first part of Priorities and Budget Committee name. Proper and

effective student representation is necessary to ensure that student money is being spent on programs which we consider to be important -- eg. updating the equipment in the Health Centers, enlarging the size and scope of the materials in the Careers Library, obtaining funds to subsidize professionally oriented student organized programes -- rather than funding services of the University community, whether they be students or administrators.

Senate

The Concordia Senate is the supreme academic body within the University. This body deals with all educational matters on a university-wide basis. All four (4) faculties are represented on the Concordia senate. There are representatives from Administration, Faculty and Students. Just a few of the items which are covered by the Senate;

1) Admission Regulations

2) Introduction of new courses and Academic Programs

3) Library

4) Student Academic Rights

5) Appeals, etc.

The Senate meets once a month throughout the school year.

C U G

The Computer Users' Group is a university-wide association funded by C.U.S.A. Our main goal is to encourage better use of the computer by the average user.

Some of the ways we have done this in the past include publishing the C.U.G. newsletter and supplementing the Programmer On Duty service at Sir George.

At Concordia, the computer is used for a wide range of applications. Hundreds of jobs are run daily by students, faculty and administration. Unfortunately, the computer is not used as effectively as it could be. There is a general lack of awareness of the effectiveness of the computer as a tool. This lack of awareness is due mainly to insufficient communication between the computer users, thus resulting in limited knowledge about the system, and as a result, less efficient use of the computing facilities.

This year we hope to continue publishing our newsletter and supplying night-time P.O.D.s. We also hope to give informative seminars on topics ranging from use of a specific editor to job card formats. We have also, for the first time, published a guide of our own oriented specifically to the student just beginning to use the computer here at Concordia.

There is no membership fee to the C.U.G. - the only prerequisite is that you be an undergraduate student with a computer account at Concordia. To become an active member (and be able to participate in elections, referenda, etc.), all you have to do is give us your name, student I.D. number, account number and phone number. You can either bring this information to the C.U.G. office in room 983 of the Hall building, or leave it in the C.U.G. mailbox in C.U.S.A. (H-637), or use the mailbox utility to mail a letter to our account, CCUSC51.

Wayne Clark
Vice President

EATING OUT

So you can't stomach another Saga DEATH-BURGER DELIGHT and you are tired of brown-bagging it. Does this mean you are going to go on a hunger strike because the opportunity presents itself? Don't waste away to nothing, here is a list of places where the foodies are good and thrifty. These institutes of gastronomic delight have been checked out by Engineers in the know, and as of yet none of them has died.

CAFE PRAUGE — NEXT TO ANNEX ON BISHOP

Quaint atmosphere. Slow service. Good, filling homecooked food. Various daily specials are on the menu for between 2.75 and 4.50. The specials include a hardy soup. Coffee or tea is extra.

LIMELIGHT CAFE — 1451 PIERCE

Like going into somebody's house. Friendly, fast service. If you go there for lunch there is only one item on the menu. Included is a soup and coffee with the main course. It will set you back between 3.25 and 4.50. If you go for supper there is a full menu available.

HAPPY WANDERER — 1923 STE. CATHERINE

A personal favorite. The food is great and the service is fast. The daily specials come with a soup, a bowl of pickled vegetables, dessert and coffee or tea for anywhere from 3.25 to 4.75.

TRAMWAY — 1122 STE. CATHERINE

It's a brasserie with a limited menu, but the food they serve hits the spot. Steins of beer are $.90 and the main

course goes for between 3.25 and 6.90.

CASA PEDRO DEMAISONNEUVE AND CRESENT

Onion soup lovers should pop in here for a taste. The fish is good too. If you don't give the waiter an 'acceptable' tip he spits on your hand!

PICASSO 2197 STE. CATHERINE

Believe it or not, a decent fast food place! Slabs of pizza go for around a buck and are big. The doughnuts are good too. Also served are burgers and dogs (the eating kind, dummy).

BAR-B-BARN 1201 GUY

A little expensive but the ribs are really good. Rumor has that the chicken is o.k. also.

THE CARB ALEXIS NIHON PLAZA

Another favorite watering hole of mine. It's a tavern with a variety of belly-filling daily specials.

TOE BLAKE TAVERN

High ceiling. Tavern type food as daily specials for not too much money. Crowded for lunch.

RAINBOW BAR AND GRILL

Fish lovers have a chance to munch on some of Neptune's delights at very reasonable prices. For under $5.00 you walk out with a full course meal in your gut.

Passing Out....

I have been asked to say a few words about the local institutions that I patronize regularly. Sir George campus happens to sit in the very heart of Montreal's finest saloons. So, without any further delay, let us venture into the home away from home of any respectable Computer Scientist or Engineer.

The ANNEX on Bishops st. between deMaisonneuve and St. Catherines is definitely a 4 star establishment. There are separate atmospheres to accommodate anyone from the punker to the mellowed out rock and roller (no disco, thank god). If an all nighter is on the agenda, this place should not figure to prominently in your plans. The prices are a little steep, and if you get too careless you may be finding I.O.U s in your mailbox until you are thirty.

Aside from the price, my only gripe is the seats upstairs and if you are the type to go oui oui after every pint, crashing over one of these static obsticles is inevitable.

For all you sangria fanatics, the CASA PEDRO is your Mecca. Once again beware of the prices, but then again if you want to do some sophisticated downtown drinking, you better expect to put out the bucks. A favorite CASA PEDRO passtime of mine is to play Vette or Callgirl. The idealplace to play is on the second floor facing Cresent street. What the members of your party must do is bet as to whether a Corvette stingray or a callgirl will go by first. It's up to you to decide on the wages. A callgirl in a corvette pays double.

I decided to become a SEAHORSE regular the first time I walked into the place. As I walked in, all I could hear were the chants "McGill sucks !!" by the clientele. It is smaller than other bars, and it is crowded. The drinks are downtown priced, but the service is fast (or at least the waitress was).

If you are looking for live entertainment, well the next best thing to Valerie Vixen's live boa constrictor act is the show at the ST. JAMES PUB on deMaisonneuve. You can dance, the drinks are moderately priced, and someone correct me if I'm wrong, there is no cover.

Suffering from six pack in the locker syndrome ? Then put your mickies away. We have our own Pub strategically placed in the dead center of the Hall building. It is called REGGIES (named after that great sanitary engineer himself). The hours are convenient, and the prices can beat the six pack in your locker.

Once in awhile REGGIES will even feature live entertainment. The rock bands are wellworth the price of admission (if any), but stay away from the debating society's Friday afternoon spectacles, they give indigestion.

Head Honcho

DIRTY DOZEN & 1/2

The very name strikes fear into the hearts and minds (if they have any) of non-Engineers. McGill jerk-offs quake in their boots (especially McGill Engineers) when they know that the D.D. & 1/2 is on the prowl.

The D.D. & 1/2 (also known as C.U.N.T.E. - Concordia University Nutty Terroristic Engineers) is a crack team of elite Engineers who enforce the will of God on campus. Yep, you guessed it, all C.U.N.T.E. (silent E) expeditions are Missions from God.

Past missions have included building a brick wall BEHIND the door of the Engineering society at McGill (he he he), tastefully relocating and repainting the sick Commerce blue booth around a pillar on the 9th floor, crashing the St. Patrick Day parade 3 times, stealing the C.U.S.A. sign from Loyola and taking the Engineering sign from Polytechnique - just to mention a few.

This year the D.D. & 1/2 are going to be just as active as ever. DO YOU HEAR THAT, McGILL PUSSIES? COMMERCE VERMIN BEWARE! ARTSIES BURY THINE HEADS IN PIG DROPPINGS!

I get carried away so easily... sorry. Now, where was I, oh yes, active as ever. Like I said, C.U.N.T.E. has more missions from God planned this year to once again show the entire UNIVERSE that CONCORDIA ENGINEERS are ALL KNOWING, ALL POWERFUL, ALL DRUNK and ALWAYS READY. Y'all will read about us in the paper.

THE WOP

ACM

Welcome to the freshmen entering the great halls of the ninth floor(where you will be spending most of your days (and many, many nights) debugging programs. To the well-seasoned veterans of our department, may you never drop your cards.

This semester is the first time we offer a student membership to the association for computing machinery (A.C.M.). By being a member of A.C.M., you acquire certain privileges non-members may never have. Such privileges as not getting beat up in dark alleys, getting nifty magazines and other junk mail, newsletters and other feldergarb. You get opportunities such as meeting others who are in our profession who could possibly get you a job when you graduate. The A.C.M. has access to movies and technical information you people of the science and digital options might be interested in. All members will enjoy the other services offered by the A.C.M.

It also sounds impressive when you mention it on a job application form.

In conclusion, if you don't join the A.C.M., chances have it you'll probably end up losing your face.

I hope to see you "rom"ing the floors of the hall building. Should any problems arise, don't blame me.

Gerald N. Okimura
Acting Chairman

OH BOY, LET'S GO BEAT ON PUNK ROCKERS!

CSME

What exactly is the Canadian Society of Mechanical Engineering? In short the CSME is a dynamic national technical society devoted to mechanical and manufacturing Engineering. Being a constituent member of the Engineering Institute of Canada, we offer the following to all student members:

- a medium for your professional development and advancement within the profession through meetings, seminars, publications, ect. including the Engineering Journal of the E.I.C.
- publications, newsleters, bulletins to keep members right up to date on developments in the field, particularly on the Canadian scene.
- extension of membership privileges to foreign sister societies at discounted rates.
- a chance to grow professionally and to help Canada improve its quality of life

Close liason between students and industry is essential, something which I feel is not stressed enough in University. The CSME provides this vital link, and the decision to join is totally in your hands, but your professional career will be enhanced because of it.

Yours sincerely,

Viswanath Tata

Viswanath Tata
Chairman of CSME
Concordia Student Branch

Roses are red,
Violets are blue,
We make our bread
On clods like you!

IEEE

We, the student branch executive of IEEE, would like to take this opportunity to welcome all new entrants to Concordia.

What are we? IEEE stands for the Institute of Electrical and Electronics Engineers - a professional society (the world's largest) of interested people.

Why are we? We exist primarily to act as a forum for technological exchanges in our chosen fields. Essentially, we keep you abreast of the current advances in electrical and electronic Engineering. In addition, we provide many more services to students such as awards, scholarships, field trips, conferences, seminars and good publications.

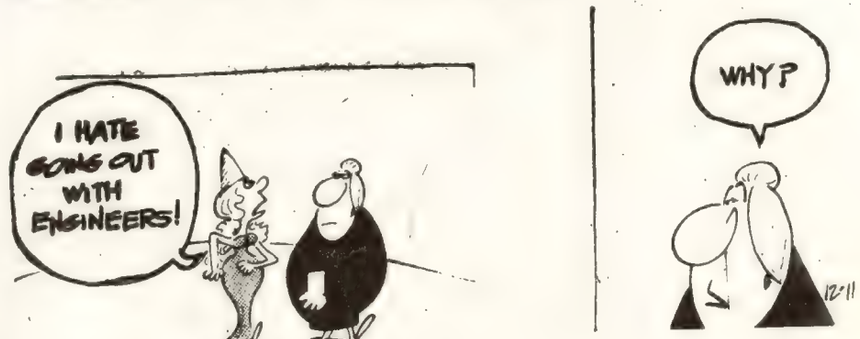
Where are we? The Concordia student branch this year has moved to new offices located in the EN annex (on Mackay street), ROOM: 301.

Who are we? For the academic year of 1980/81, the executive consist of:

DEMETRIS PAULIDES	chairman
V.NAGESH TATA	vice chairman
RICHARD BRUNNER	secretary

with DR. D.T. GIBBONS - as faculty advisor.

Why should I join? Because you would like to keep up with the latest developments, discoveries and advances in the electrical world. Because maybe you can get some ideas as to where you would like to direct your career. Because you would like to benefit from some of the many things we do for you. Please note that to join, you don't necessarily have to be an electrcal Engineer, just have to have an interest in our very diverse field. Watch out for our membership drive during Orientation Week and the first few weeks of classes. For more information contact any of the executive, and we would be more than happy to be of any service to you.



SAE

Always wanted to be a grease monkey but got talked into Engineering? Love to match gears revolving in a cascade of hot oils from some of the world's finest wells? How about chains and belts used in unusual applications? (I hope you're following). Well then the S.A.E. (Society of Automotive Engineering) is for you.

For the mere price of taking your favorite furry animal out Friday night, (that's five bucks to those of you that aren't allowed out) you are entitled to twelve (12) issues of the society's magazine Automotive Engineering, club newsletters, Industrial tours, discount to the Montreal section's supper meetings, and lots more.

Not to be mistaken as a "Mech only" society, S.A.E. offers subjects of interest to all engineering types, and other forms of life EXCEPT artsies, who shouldn't even have a copy of this!

Seriously though, if you can appreciate the advantage of a membership in an established society, and are consciencious about keeping abreast of current trends in the automotive and related fields, give us a hard look and a visit during orientation.

P.S. If you see me in the hallway at all, leave me alone, unless you want to buy me a beer or if you're a willing female.

Gary Kulhanek

Chairman
Student Branch
Society of Automotive Engineers

Loyola Campus

For those of you who have opted for LOYOLA, "WELCOME". At Loyola we have our own association called the E.U.S. (Engineering Undergraduate Society). We're a smaller organization as compared to the E.U.A., Sir George's association and tend to be less formal but we do try to work together.

Our purpose, among other things, is to represent and help you. We are budgeted the money you put towards student fees, so help us spend it. If you want to know what courses are tough or what courses are easy; why not ask us? We'll tell you basically what you can get away with and what you can't. If you want to know what the profs. are like, talk to us. You'll usually find some of us either in the pub in the afternoons or upstairs in the Oasis during lunch. Once we get back into a routine, we'll let you know where you can find us.

There are a lot of activities planned for the coming year, such as "Meet the Profs Night" which is a party with the profs where we get a chance to talk and try to get on their good sides. Then there's the field trips. Some of the possibilities include; Dominion Engineering, James Bay, Metro Line and a Nuclear Site. Some of the other activities include; Flag Football, Broomball, Engineering Week and especially Beer Bashes. We've already scheduled a Bash for September 19th. It should make for a good time and we hope to see you there.

Now here are the people that were duly elected to help you:

President:	Anthony Kokus 484-3837
Vice-Pres:	Joe Masella 488-7715
Treasurer:	Jeff Bayly
Secretary:	Keith Ayre 631-8954
1st Year Rep:	Dave Strobl 733-5038

Don't be shy, talk to us. We want to have a close knit group that participates and works together well.

Our office is located in room 110 of the Centennial Building. If one of us is not there at that time, feel free to leave any messages or discuss any problems with one of the CUSA secretaries on the second floor of the same building.

Our permanent office hours are spent in the campus center pub on Friday afternoons. Our flexible office hours are spent at the same place at any other time.

Between classes we can be found at the Guadagui Lounge on the top floor of the CC building which is incidentally where all the beer bashes are held. We also occasionally occupy one of rooms in the basement.

You'll find that the nucleus of the Engineering faculty is on the third floor of the RF Building which is right at the end of the CC Building. Most marks are posted there. The main Engineering office is in room RF326 where two friendly secretaries are always eager to help with any problem you may encounter.

The Bookstore is next to the Campus center. You'll use it because you're not likely to find available any used books. You can find out about libraries and other facilities in the CUSA handbook. It'll be a good term if we all work together.

EUA Awards

The "Lusty and GUSty" Award:
Presented to the engineer who can claim to be a Christian Soldier, not look at porno mags and yell a lot.
Past Winner: A.G.

The "In the army we do it this way" Award:
Presented to the engineer who tries to run things like he's still in the army and doesn't succeed.
Past Winner: A.G.

The "Spit and I'll show you who is a man" Award:
Presented to the engineer who tries to get funds from C.U.S.A. by spitting on the floor and beating his chest.
Past Winner: A.G.

The "Fournier brothers' friend" Award:
Presented to the engineer who had to tolerate the Fournier brothers and live to tell (and bore) others about it.
Past Winner: A.G.

The "Cocksucker and Hypocrite" Award:
Presented to the engineer who thinks that people smarter and wiser in the ways of the world than he is are either cocksuckers or hypocrites.
Past Winner: A.G.

Answers not to use on the finals

Altair bus : Interstellar mass transit.
Assembler : A person who puts computer kits together.
Baud : A denizen of a baudy house.
Bed of nails : Place where a test programmer sleeps.
Bells and whistles : Trinkets for the computer.
Binary : A consumer-protest slogan.
Bus : a mass transit vehicle.
Buss : A short period of oscillation.
Bytes : What a vampyre does.
Card reader : A fortune teller.
Checksum : What's left is your bank balance.
Clock interrupt : What wakes you up on weekdays.
Comm link : Associating with a fellow traveller. (See pinko.)
Conditional branch : A dowsing rod.
Cycle stealing : Petty larceny.
Cyclic redundancy check : Taking inventory in a bike shop.
Debugging : Infinite regression.
Disassembler : As distinct from dat assembler.
Floppy disk : Lower back trouble.
Flowcharts : Maps used by riverboat pilots.
Full duplex : E.G., a cocktail party.
Fully integrated : See busing.
Half duplex : A small apartment.
Handshaking : State of the user the first time he tries out the computer.
Hardware : E.G., helmet, gauntlets, etc.
Hex : To cast a spell.
Hidden refresh : Keeping the flask in the desk drawer.
High-level language : Spoken at summit meetings.
Immediate : The need for a new compiler, disk drive, etc.

Indirect addressing : Confidential mail forwarding.
Interface : Vhere ve heil Der Fuehrer.
Interpreter : Worker at the U.N.
Low-order bits : Random numbers in base 2.
Memory refresh : Souvenirs.
Monitor : See Merrimack.
Motherboard : See soap opera.
Negative logic : Reverse psychology.
OS : A mythical country. (I.E. - like Oz).
Packing density : See full duplex.
Parameters : What you use to measure two things at the same time.
Parity bit : Having two guests at 4 a.m.
Personal computing : Kinky computer dating service.
Program counter : A user group's software librarian.
Prom : A social event for adolescents.
Ram : A Los Angeles football player.
Random access storage : E.G., an attic.
Rectifier : The result of a collision with a gasoline truck.
Regulator : E.G., prunes.
Rom : A gypsy man.
Scan : A garbage receptacle.
Sign bit : The act of paying by credit card.
Software : Polyester double-knit.
State of the art : New York.
Subroutine : U-boat's usual actions.
Two's complement : A small mutual admiration society.
Up and running : What to do when your mistress's husband arrives.
Utility : E.G., water, gas, electricity.
Write enable : A smooth, flat, solid surface.

Ranting and Raving

Every now and then, usually on a Friday, we grace (?) the sports complex at Loyola with our presence. Our main reasons for going are to watch a good hockey game and get smashed out of our gourds (not necessarily in that order).

A typical night was one Friday in late November. The Concordia Stingers (QUAA champs for God knows how long) were playing the McGill Redmen (QUAA doormats for God knows how long). Game time was around 8:00 (nobody really cared - you can start drinking at any hour), but we were on the 6:30 shuttle to get an early start. We had something like 72 brew for the 9 of us. (What can I say, I wasn't really thirsty that night). Little did we know how soon it would run out.

Since we got here so early, we had some time to kill. We just went from place to place, getting kicked out as we went along. By the time the game started, we were already vocal and in good spirits (or were the good spirits in us ??)

Now when we go to a hockey game, everybody knows were there. The Stingers get marvellous ovations, accompanied by a bass drum and kazoos. The referees know we're there every time they make a bad call (or a call against the Stingers - same thing). The fans know we're there - after all it is kind of hard to miss us. And the opposing team always knows we're there - or else. (How many insulting words can you think of that rhyme with Inuk ?)

Naturally you might expect that some of us might not remember the score of the game the next morning. I strongly deny this allegation. I can always tell you what the score was the next day. However, I might not be able to remember the teams, the place or even the sport. But the score - always.

Anyways, the beer ran out half way through the second period. (Maybe I was thirsty after all.) If you think that a group of Engineers can be mean and viscious after 72 beer, you

should see them after they have 72 and realize there aren't any left. So Roger Dugal, ex-President of the E.U.A., scouted the neighborhood for more, but couldn't find any (all together now, B00000000).

So we trekked over to the Guidangi Lounge, leaving when the score was 10 - 0 (told ya I remembered the score). The rest of the night is pretty vague, but everybody told me on Monday that I had a great time, so I guess I must have.

A VISIT FROM ST. PASCAL

'Twas the night before Christmas. Throughout my computer room,
Not a creature was stirring - (that line you'd assume).
The CRTs sat in a state of despair -
Just hoping St. Pascal soon would be there.
The teletypes slept - computers in bed
While visions of "do-loops" danced through their heads.

Me in my P.J.'s, my girlfreind in her gown
Were rather upset 'cause the system was down.
When way down the hall there arose such a clatter
I sprung from my bed to see what was the matter.

In one nano-second (well... maybe 'twas two)
I was back to my hardware, my prized CPU.
The moon on the screen of my new CRT
Reflected so bright, like day I could see !!!
When what to my wondering eyes did appear,
But a huge floppy disc and a man growing near !!!

"Flying carpet from east", I murmured and cried;
But no, Saint Pascal himself had arrived.
The huge disc was powered by micros in a train,
And he whistled and shouted and called them by name;

Now Imsai, now Apple, now Intel and Mits !
On Heathkit, on Pet, (and of course) Tektronix !
From the big CDCs to the hobbyists all
Now dash away, dash away, dash away all !!!

As human beings that, when hit with current, fly
When putting fingers in outlets, mount to the sky,
So down to my room, that company flew
With some software and hardware (and Saint Pascal, too).

And then in a twinkling I heard on the floor
The squeak of his shoes as he opened the door.
As I drew in my head and turned it aside,
My computerist's room he walked right inside.

He was dressed all in jeans from his head to his toes
(Where he got all that denim, nobody knows).
Machine on machine he had stuffed in a sack
And he looked like a peddlar opening his pack.

He was rather small - a runt, if you please,
But his eyes were lit up like big LEDs.
His hair was unkempt, but I didn't mind that,
I just sat there drooling at that big hardware sack.
His face was quite thin - like the rest of his bod
And pardon the word, but he looked like a clod !

A listing of length he had stuffed in his sack.
I'm not very sure, but i think 'twas called permutation stacks.
A program tape he held tight in his teeth
And it wrapped 'round his head like an Arabian sheik.

He looked rather tired and needed a shave,
But all of these faults I quickly forgave.
A wink of his eye - a twist of his head
Convinced me right off I had nothing to dread.

He spoke not a word but went straight to his work.
Fixed all my equipment then turned with a jerk.
And closing the lid of his tool chest behumped
He picked up his sack - out the window he jumped.

He hopped on his disc - then input one line :
For Q equals one to a hundred and nine.
Flashed a huge CRT with a mighty big byte :
"Merry Christmas to all, and to all a good night !!"

Laws to Live by

Finagle's Rules: Ever since the first scientific experiment, man has been plagued by the increasing antagonism of nature. It seems only right that nature should be logical and neat, but experience has shown that this is not the case. A further series of rules has been formulated, designed to help man accept the pigheadedness of nature:

(1) To study a subject best, understand it thouroughly before you start.
(2) Always keep a record of data. It indicates you've been working.
(3) Always draw your curves, then plot the readings.
(4) In case of doubt, make it sound convincing.
(5) Experiments should be reproducible. They should all fail in the same way.
(6) Do not believe in miracles. RELY ON THEM!
(7) If an experiment works, something has gone wrong.
(8) No matter what result is anticipated, there will always be someone eager to (A) misinterpret it, (B) fake it, or (C) believe it happened to his own pet theory.
(9) In any collection of data, the figure most obviously correct, beyond all need of checking, is the mistake. Corollary 1: No one whom you ask for help will see it. Corollary 2: Everyone who stops by with unsought advice will see it immediately.
(10) Once a job is fouled up, anything done to improve it only makes it worse.
(11) Science is truth - don't be misled by facts.

Gib's Laws of Computer Unreliability:

(1) Computers are unreliable, but humans are even more unreliable.
(2) Any system which depends on human reliability is an unreliable system.
(3) The only difference between the fool and the criminal who attack a system is that the fool attacks unpredictiably and on a broader front.
(4) Self-checking systems tend to have the inherent lack of reliability of the system in which they are used.
(5) The error-detection and correction capabilities of any system will serve the key to understanding the type of error which they cannot handle.
(6) Undetectable errors are infinite in variety, in contrast to detectable errors, which by definition are limited.
(7) Investment in reliability will increase until it exceeds the probable cost of errors or until somebody insists on getting some useful work done.

Murphy's Laws:

(1) Nothing ia as easy as it looks.
(2) Everything takes longer than you think.
(3) In any field of scientific endeavor, anything that can go wrong will go wrong.
(4) If there is a possibility of several things going wrong, the one that will cause the most damage will be the one to go wrong.
(5) If anything just cannot go wrong, it will anyway.
(6) If you perceive that there are four possible ways in which a procedure can go wrong and circumvent these, then a fifth way, unprepared for, will promptly develop.
(7) Left to themselves, things tend to go from bad to worse.
(8) If everything seems to be going well, you have obviously overlooked something.
(9) Nature always sides with the hidden flaw.
(10) Mother Nature is a bitch!
(11) It is impossible to make anything foolproof, because fools are so ingenious.
(12) If mathematically you end up with the incorrect answer, try multiplying by the page number.
(13) With regard to thermodynamics - everything gets worse under pressure.

Utz's Laws of Computer Programming:

(1) Any given program, when running, is obsolete.
(2) Any given program costs more and takes longer.
(3) If a program is useful, it will have to be changed.
(4) Any given program will expand to fill all available memory, and then some.
(5) If a program is useless, it will be documented.
(6) The value of a program is proportional to the weight of its output.
(7) Program complexity grows until it exceeds the capabilities of the programmer who must maintain it.
(8) Make it possible for programmers to write programs in English, and you will find that programmers cannot write in English.

Snafu Equations:

(1) Given any problem containing N equations, there will always be N+1 unknowns.
(2) An object or bit of information most needed will be least available.
(3) Any device requiring service or adjustment will be least accessible.
(4) Interchangeable devices won't.
(5) Badness comes in waves.

Fahrguard's Four Laws of Thermodynamics:

(1) No matter how hard you try, you can only break even.
(2) You can only break even at absolute zero.
(3) Absolute zero is impossible to attain.
(4) No matter how hard you shake it, the last few drops always run down your pants.

Featherstone's Accurate Steps to Systems Development:

(1) Wild enthusiasm.
(2) Disillusionment.
(3) Total confusion.
(4) Search for the guilty.
(5) Punishment of the innocent.
(6) Promotion of the nonparticipants.

The Law of the Lost Inch:

In designing any type of construction, no over-all dimension can be correctly totaled after 4 P.M. Friday.

Corollary 1: Under the same conditions, if any minor dimensions are given to 1/16 th of an inch, they cannot be totaled at all.

Corollary 2: The correct total will be self-evident at 9:01 Monday morning.

Computer Science Serenade

(Sung to the tune 'My Bonnie Lies Over the Ocean")

My program lies under the backlog,
My card deck's all over the floor.
The plotter is using a crayon
And I just can't take it anymore.

(CHORUS)

Bring out, bring out
Oh bring out my printout today, today.
Bring out, bring out
The one you ripped off yesterday.

The card reader chewed up my job card
And someone erased all my files.
The system has been down for hours
While people collapse in the aisles.

(CHORUS)

Flunk out, flunk out
I worked like a dog every day.
Flunk out, flunk out
Twelve assignments were due yesterday.

Security hole I've discovered
The records of grades are now mine.
What once was a one-point-five average
Will soon be three-point-nine-nine.

(CHORUS)

Send out, send out
Oh send out the grades to big companies
Send out, send out
They'll all want a scholar like me !

TAKE AN ENGINEER TO LUNCH TODAY ... OR ELSE!

The Engineering Hymn

CHORUS; (to be sung after each verse)
WE ARE, WE ARE, WE ARE, WE ARE, WE ARE THE ENGINEERS,
WE CAN, WE CAN, WE CAN, WE CAN DEMOLISH FORTY BEERS,
SO COME, SO COME, SO COME, SO COME, SO COME ALONG WITH US
'CAUSE WE DON'T GIVE A DAMN FOR ANY OLD MAN WHO
DON'T GIVE A DAMN FOR US!

Godiva was a lady who through Coventry did ride,
Showing all the villagers her lovely lilly-white hide,
The most observant man on earth, an Engineer of course,
Was the only man to notice that Godiva rode a horse.

She said "I've come a long way and the man will go as far,
Who takes me off this bloody horse and leads me to a bar,"
The men who took her off her horse and stood her to a beer,
Were a bleary-eyed Comp-Sci man, and a drunken Engineer.

My father was a miner on the upper malemute,
My mother was a hostess in a house of ill repute,
They kicked me out at a tender age, and never shed a tear,
"Get out of here, you son-of-a-bitch, go join the Engineers!"

Now, my mother peddles opium, my father is on the dole,
My sister used to walk the streets, but now she's on parole,
My brother runs a restaurant with some bedrooms in the rear,
But they will not talk to me, I'm just a God-damn Engineer!

Venus is a statue made entirely of stone,
There's not a fig leaf on her, she's naked as a bone,
On noticing her arms were gone, an Engineer discoursed,
"Why the damn thing's broken concrete, and it should be
reinforced!"

Julius Caesar went to Egypt when he was only fifty-three,
But Cleopatra's blood was red, her heart was warm and free,
and every night when Julius said good-bye at one o'clock,
A Roman Engineer was waiting just around the block.

Sir Francis Drake and all his men sailed up to Calais Bay,
'Cause they heard the Spanish Rum Fleet was heading up that way,
But the Engineers had beat them by a night and half a day,
And through they were tight as alcoholics there's still one thing they'd say . . .

The Army and the Navy were out to have some fun,
Looking for a tavern, where the fiery liquors run.
All they found were empties, for the Engineers had come,
And traded all their instruments for gallon jugs of rum.

An Engineer once came to class so drunk and very late,
He was carrying a load that you'd expect to ship by freight,
The only thing that held him up and kept him on his course,
Was the boundary condition and the hydrostatic force.

A commie and an Engineer once found a gallon can,
Said the commie "Match me drink for drink and prove that you're a man"
They drank three drinks, the commie died, his face was turning green,
The Engineer drank on and said, "it's only gasoline!"

I happened once upon a maid whose heart was made of fire,
Her physical endowments would have made your hands perspire,
She surprised me when she told me that she had never been kissed,
For her boyfriend was a tired Computer Scientist.

A maiden and an Engineer were sitting in the park,
The Engineer was busy doing research in the dark,
His scientific method was a marvel to observe,
His left hand took the readings while his right hand traced the curves.

After reading Kama Sutra, they tried position nine,
For proving masculinity, it truly was divine
But then one day the girl rebelled and threw him on his rear,
For he was a feeble commie, and she an Engineer.

A Comp-Sci man was having lunch between a maidens thighs,
She admired his unique physique (but that is no surprise),
When asked about his stamina the lad was forced to say;
"For the past six years my down time has been only half a day".

Now you've heard out story and you know we're Engineers,
And like all good jolly fellows we drink our whiskeys clear,
We drink to every fellow who comes from far and near,
'cause we're a hell-of-a, hell-of-a, hell-of-a, hell-of-an ENGINEER !
CHORUS ONCE AGAIN !

Shades of Shakespeare

There were two small boys in a school play. Each of them had only small lines to recite. One being, "Oh Fair Maiden ,I have come to snatch a kiss and fill your soul with hope." The second little boy was to say immediately following this,"Hark a pistol shot". The night of the play came and found the boys very nervous, aware that their parents were in the first row. Finally it came time for the first boy to speak and being nervous he said," Oh Fair Maiden, I have come to kiss your snatch and fill your hole with soap". Hearing this the second boy was more upset and said,"Hark, a shistol pot,a shit pot, a cow shit,---- Bullshit, I didn't want to be in the play anyway".

SEPTEMBER 1980 SEPTEMBRE

SUNDAY DIMANCHE	MONDAY LUNDI	TUESDAY MARDI	WEDNESDAY MERCREDI	THURSDAY JEUDI	FRIDAY VENDREDI	SATURDAY SAMEDI
	LABOUR DAY FÊTE DU TRAVAIL 1	2	3	4	5	6
7	8 CLASSES BEGIN / OPENING BASH	9 ENGINEERING ORIENTATION WEEK	10	11	12	13 CLOSING BASH
14	15	16	17	18	19 REGULAR COURSE CHANGES END	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER 1980 OCTOBRE

SUNDAY DIMANCHE	MONDAY LUNDI	TUESDAY MARDI	WEDNESDAY MERCREDI	THURSDAY JEUDI	FRIDAY VENDREDI	SATURDAY SAMEDI
			1	2	3	4
5	6	7	8	9	10	11
12	THANKSGIVING DAY JOUR D'ACTION DE GRÂCES 13 UNIVERSITY CLOSED	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31 LAST DAY FALL TERM WITHDRAWALS	

NOVEMBER 1980 NOVEMBRE

SUNDAY DIMANCHE	MONDAY LUNDI	TUESDAY MARDI	WEDNESDAY MERCREDI	THURSDAY JEUDI	FRIDAY VENDREDI	SATURDAY SAMEDI
						ALL SAINT'S DAY LA TOUSSAINT 1
2	3	4	5	6	7	8
9	10	REMEMBRANCE DAY JOUR DU SOUVENIR 11	12	13	14	15
16	17	18	19	20	21	22 GREY CUP PARADE
23	24	25	26	27	28	29

DECEMBER 1980 DÉCEMBRE

SUNDAY DIMANCHE	MONDAY LUNDI	TUESDAY MARDI	WEDNESDAY MERCREDI	THURSDAY JEUDI	FRIDAY VENDREDI	SATURDAY SAMEDI
	1	2	3	4	5	6 CLASSES END
7	CONCEPTION DAY IMMACULÉE CONCEPTION 8	9 EXAMS BEGIN	10	11	12	13
14	15	16	17	18	19	20
21	22	23 EXAMS END	24	CHRISTMAS DAY NOËL 25	26	27
28	29	30	31			

January 1981 Janvier

Sunday Dimanche	Monday Lundi	Tuesday Mardi	Wednesday Mercredi	Thursday Jeudi	Friday Vendredi	Saturday Samedi
				1	2	3
4	5 REGISTRATION, COURSE CHANGES BEGIN	6	7	8 CLASSES BEGIN	9	10
11	12	13	14	15	16 REGISTRATION, COURSE CHANGES END	17
18	19	20	21	22	23	24
	26	27	28	29	30	31

February 1981 Février

Sunday Dimanche	Monday Lundi	Tuesday Mardi	Wednesday Mercredi	Thursday Jeudi	Friday Vendredi	Saturday Samedi
1	2	3	4	5	6	7
8	9 OPENING BASH	10	11 SMOKERS NIGHT	12 CLOSING BASH	13 SKI TRIP	14 BALL
	ENGINEERING WEEK					
15	16	17	18	19	20	21
22	23 READING DAY	24 READING DAY	25	26	27 LAST DAY ACADEMIC WITHDRAWALS	28

March 1981 Mars

Sunday Dimanche	Monday Lundi	Tuesday Mardi	Wednesday Mercredi	Thursday Jeudi	Friday Vendredi	Saturday Samedi
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 1981 Avril

Sunday Dimanche	Monday Lundi	Tuesday Mardi	Wednesday Mercredi	Thursday Jeudi	Friday Vendredi	Saturday Samedi
			1	2	3	4
5	6	7	8 CLASSES END	9	10	11 EXAMS BEGIN
12	13	14	15	16	UNIVERSITY CLOSED Good Friday Vendredi Saint	18
19	20 UNIVERSITY CLOSED	21	22	23	24	25
26	27	28	29	30 EXAMS END		

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